



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Gabe Cherian.

Serial Number: 10/765,772

Art Unit: 2841

Filed: 01/26/2004

Examiner: Mr. HOA CAO NGUYEN

For: Oriented Connections For Leadless and Leaded Packages

RESPONSE TO THE FINAL REJECTION DATE MAILED 05/15/2007

August 14, 2007

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

References:

- 1. Final Rejection Office Action, Date Mailed 05/15/2007, Confirmation No. 2451.**
- 2. Interview Summary, Date Mailed 07/27/2007, Confirmation No. 2451.**

Greetings:

This paper is submitted in full response to the Final Rejection, as well as in recognition of the Interview Summary, as per References above.

I am attaching with this response a Request for Continued Examination (RCE), Form PTO/SB/30, together with a Credit Card Payment Form PTO-2038 for \$395.- [Three Hundred and Ninety Five + 00].

This response constitutes the Submission required under 37 CFR 1.114.

I would like to thank the Examiner for giving me the telephone interview, which helped me better understand the basis of the rejection. The interview summary shed even more light on

the subject, and both events helped me in reformulating my claims and in preparing my response.

I agree with Examiner, as in his paragraph 2 of the Final Rejection, that claims 41-50 and 53-58 are withdrawn from consideration. Thank you.

As for **Claims 38-40 and 51-52**, I have done the following:

The last sentence in the last page of the Interview Summary, under Continuation of Substance of Interview, reads as follows:

“The Examiner also recommended the applicant should include more limitations about the joint structure in the independent claims 38 and 51 in order to over come the reference art.”

Accordingly and as per recommendation of the Examiner, as stated above, I have included more limitations about the joint structure in the claims, as will be seen in my present newly amended claims, which I have attached in the **“IN THE CLAIMS”** below.

I have changed the main emphasis in the claims preamble, from claiming the **“pads” by themselves**, to claiming an **“assembly”**, comprising **“a substrate and a group of pads”**, and then I have emphasized the **“orientation”** of these pads.

In fact, I have tried to emulate the wording of the Prior Art cited by Examiner, namely Washino’s US Patent # 5,484,963, figuring that the wording used by Washino and the contents of his claims were acceptable at that time to make his claims allowable. Accordingly, I expect that the wording of my claims would be acceptable as well, provided that Examiner agrees that my claims represent something that is **not obvious**.

I have addressed the question of **obviousness** here below.

I have called the USPTO and talked with one of the "Inventor Assistance Advisors" and asked about how can one convince an Examiner that an invention is unobvious. The answer was that one way is to show that **the invention "produces an unobvious result"** in the view of the practitioner.

So, I would respectfully like to draw the attention of Examiner to certain points, as seen in the following attached "**REMARKS**" below, which will show to Examiner that Washino's prior art did not teach over my invention, and that it was not obvious to one having ordinary skill in the art at the time the invention was made, to do what I have done in my present invention.

In short, my invention produces an unobvious result. It produces a mechanical/ utility advantage, which was not anticipated by Washino and would not have been obvious to one having ordinary skill in the art at the time the invention was made. My invention helps in reducing the stresses on the joints and the pads, so that the joints would not crack or break or separate from the pad, and that the pad would not crack or delaminate and separate from the substrate. The end result is to enhance the reliability and to prolong the operating life of the electronics assemblies that are created using my invention.

In fact, the whole electronics industry has been struggling, for many years, with the problem that I am solving with my invention. The industry has been trying several methods, devices and approaches to solve the problem, but there is still a lot to be desired.

My invention will help solve the problem. And my solution is new and novel and nobody has thought about it until now, because it was not so obvious to anyone else before. And Washino definitely was not addressing this problem per se.

I have explained my reasoning and the technical/engineering principles relating to stresses in the joints and on the pads, in the attached "**REMARKS**". I have called my explanation, "**Thesis to show that "orienting the elongated pads at 90 degrees to the radial", as**

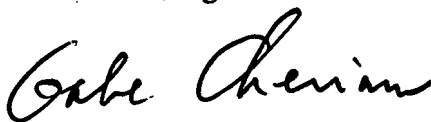
proposed in my (Cherian) invention, produces an unobvious result and advantage, in the view of the practitioner.”

I have felt that it is important to show, that by using the orientation that I am proposing in my invention, we can lower the stresses on the pads, so as to reduce the probability of breaking the joints away from the pads, and/or from separating/delaminating the pads from the substrate. This is in contrast to Washino's Prior Art, which would increase the stresses and would increase the probability of cracking, delamination and failure.

Accordingly, I believe that, based on my explanation in my “REMARKS” below, my present newly amended claims should now be considered in condition for allowance and accordingly, I respectfully request the favor of allowing these claims, and of issuing a patent for them.

Thank you very much and best regards.

/Gabe Cherian/.



PPS: I suspect that there are no additional fees, since the number of active independent and dependent claims are not more than those in the original application.

The original application had 4 independent claims and a total of 21 claims.

The present active claims include only four (4) independent claims and a total of 18 claims.

So, there are no excess claims, and consequently no excess fees required.

Please advise if this is not correct.

Thanks.

/Gabe Cherian/.

